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# **Is Extension Ready to Adopt Technology for Delivering Programs and Reaching New Audiences?**

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**Abstract:** The Cooperative Extension System is at a crossroads regarding educational program delivery and clientele relationships in a digital age. To "help prepare counties for a future that demands increased use of technology for improving work efficiencies and expanding audience outreach," an assessment team was appointed to conduct a case study to investigate the potential for adoption of technology in county Extension programs in the Oregon State University Extension Service. This article contains key findings and recommendations in response to questions the team was charged to answer and assumptions it was asked to explore, many of which have national relevance.

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## **A Call to Action**

The Cooperative Extension System is at a crossroads as the mechanisms for learning and information dissemination in our society have been shifting from authoritative sources to people's social networks. Pew reports that 35% of adults had profiles on social network sites at the end of 2008, up from just 5% in 2005 (Lenhart, 2009). This trend is accelerating; for example, Facebook has 300 million unique users, and the 35-54 age group grew at a rate of 276% in

2009 (Corbett, 2009). Rural broadband adoption saw home high-speed access grow from 38% in 2008 to 46% in 2009, a 22% increase (Horrigan, 2009). This trend should not to be ignored and presents both opportunities and threats to Extension's position of being a trusted source of research-based information and education.

In consideration of these trends and to "help prepare counties for a future that demands increased use of technology for improving work efficiencies and expanding audience outreach" (Diem, Gamble, Hino, Martin, & Meisenbach, 2009), an assessment team was appointed to conduct a case study to investigate the potential for adoption of technology in county Extension programs in the Oregon State University Extension Service.

The team, which included two members of the leadership of the national eXtension initiative, was asked to meet with the entire faculty/staff of two county Extension offices in Oregon, totaling approximately 25 people, in August 2009. The assessment team spent several months devising an effective case study process, reviewing data, and considering subsequent recommendations detailed in its final report (Diem, et al., 2009).

The two counties selected for assessment were intended to be representative of both spectrums of OSU Extension audiences: an urbanized county with a major research university and a rural county with an economy driven by natural resources (i.e., the forest industry).

The assessment team was charged with answering a list of questions regarding technology use (both for educational program delivery as well as administrative efficiency), and to explore the legitimacy of the following planning assumptions:

1. There is an increased need for education by expanded and diverse audiences not yet familiar with OSU Extension.
2. Political viability requires expanding Extension's audience base through quality access to varied education options.
3. A growing number of audiences expect that education will be delivered via technology.
4. Available resources, including dollars, people, and time, will continue to decrease relative to demand.
5. Extension's competitive advantage in the expanding technology world is relationship-based.

Prior to this case study, a variety of studies had looked at the readiness of Extension clientele to utilize technology in their businesses (Burke & Sewake, 2008; Minor & Harris, 2001; Thomas & Callahan, 2002) but rarely looked at the readiness of Extension at being a leader in using technology for its educational program delivery. Some studies even questioned the validity of such methods, or at least seemed to confirm the desire for traditional Extension methods (Rodewald, 2001; Simeral, 2001; Decker, Lassoie, Goff, & Parrish, 1988; Richardson, 1994). Others (Wilson, 2001; Benavente, Jayaratne, & Jones, 2009), described concerns or special considerations for educational strategies used to reach limited-income or non-traditional audiences.

## **A Tale of Two Counties: A Case Study**

In advance of visits to Extension offices in two Oregon counties, three types of information were sought:

- An online questionnaire (administered via StudentVoice.com) of all Extension faculty/staff was conducted to learn what was known about clientele, how technology was currently being used, and to determine their perceptions of barriers and needs related to technology use for programmatic and administrative purposes.
- As part of the pre-visit survey, faculty/staff were requested to contribute to the Pew Internet & Family Life Project (2009) by completing the online questionnaire: "What Kind of Tech User Are You?" and reporting their user type in the pre-visit survey. This gave a perspective on current technology use by the county faculty/staff. Responses were anonymous and only aggregate data were viewable.
- Background information and viewpoints of the Extension Staff Chairs in the counties to be visited also was requested and shared with the review team.

County visits were guided by the following agenda:

- Introduction/Purpose/Activity to emphasize the importance of observation  
<<http://www.youtube.com/watch?v=Ahg6qcgoay4?>
- Review of what the Pew Technology Profiles mean so employees would gain perspective on their current technology use as well as that of the clientele they serve
- Small Group Activity (Key questions and sharing of stories related to technology use by Extension employees and clientele)
- Large Group Discussion (Reporting key points from small groups and determining common threads)
- A Discussion about Audience: Current versus Potential

Five questions included as part of the original charge to this review team were explored with the county faculty and staff via the pre-visit survey as well as during the county visits. Details of the assessment team's observations and commentary in response to those questions are in the final report. The questions explored were:

1. What do you know about your audiences and how do you know it? What are the issues they face?
2. How do you set priorities for focusing on quality service to stakeholders in ways relevant for today's work environment?
3. What programs or educational activities are suitable and adaptable for technology?
4. What do you need to be successful in adopting technology to advance your work?

5. How might you deliver programs with greater efficiencies and expanded outreach? (Not necessarily targeting new audiences, but taking advantage of work already in play to expand audience reach.)

## What Was Learned

Some key findings of the assessment included the following.

- Time, money, and training remain key barriers and constraints to adopting technology.
- Evidence was clear that a majority of faculty/staff really only know their currently served audiences and that local Extension programs have often sacrificed new audiences by catering to the "high-maintenance needs" of traditional clients who have come to expect one-on-one availability of Extension expertise. Therefore, there is a fear among Extension personnel that they will lose or alienate their current clients if new methods are used.
- Declarations made by faculty/staff were occasionally in conflict with factual evidence (such as the Pew data on societal Internet use). For example, while many faculty/staff believed traditional clientele were not interested in or unable to use technology, a nationwide survey conducted by the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) showed that Oregon's farmers and ranchers are among the leaders in their use of computers. Indeed, the Oregon Department of Agriculture (2009) reported that these results indicated, "computers are just as important to most Oregon agricultural producers as the tractor or any other common type of equipment."
- Faculty/staff don't know what they don't know. In particular, they don't know what technology can or can't do. Misperceptions regarding the current capabilities and sophisticated nature of online delivery (and a broad lack of awareness of eXtension) makes them feel they will lose their teaching presence. Accordingly, they remain unconvinced or at least reluctant to believe that technology can assist them in relationship building in addition to face-to-face interactions.
- Faculty/staff are concerned that technology use (such as online program delivery) will take their service beyond their political and funding boundaries. Compounding that may be the belief often held by local taxpayers, and perhaps County Commissioners, that they have complete "ownership" of a local Extension program that is, in reality, cooperatively funded at local, state, and federal levels . . . and sometimes through private sources.
- Faculty/staff have some difficulty grasping the concept of a "virtual Extension office" or "virtual program delivery." They are largely place-bound and believe a physical place is a necessary part of their work. Even some younger faculty/staff hold such beliefs, indicating that Extension often hires in its own image or that the traditional Extension culture exhibits considerable inertia and resistance to change.

## Recommendations for Change

The assessment team determined that a shift in philosophy and approach is needed based on two challenges to be faced:

1. A balanced approach to reaching new audiences and maintaining traditional supporters is key to Extension's future.
2. Expanding Extension's reach in a global society while maintaining local connection is a delicate balance that must be addressed.

In response, the assessment team recommended six key actions (which are detailed in its final report) to meet these challenges:

1. Set the tone, lead by exampleâ Extension leadership needs to model the use of technology.
2. Establish and implement a state Extension technology plan based on Extension leadership directives and a needs analysis.
3. Promote and recognize technology use by faculty, staff, and volunteers.
4. Dedicate resources and support to improve success.
5. Meet the need for technology for administrative/management tasks, not just educational program delivery.
6. Use and promote eXtension for online collaboration, program content, and delivery.

## **Summary and Conclusions: Local Observations May Have National Relevance**

The technology readiness assessment in the two counties studied brought to the surface many organizational and personnel issues needing a total organization effort to address. The current county-based delivery of Extension education is failing to serve a progressive and growing constituency that not only desires, but also expects to find, all forms of education and information online. These online audiences will not participate in more traditional Extension educational offerings, and ignoring their needs threatens the future viability of the Extension system. Therefore, Extension must model the use of technology. It has historically been a leader in adopting new tools and practices (hybrid corn, irrigation, etc.), so why not information technology for educational program delivery, content management, and clientele service?

Underserved online audiences are obviously not restricted to the counties studied. Serving them is a local, state, and national concern. In order to meet their needs, Extension needs to approach these audiences in new ways. Online constituents transcend geo-political boundaries and may not be best served by Extension's traditional organizational boundaries. Virtual audiences require virtual organizations dedicated to serving their unique needs, just as county educators today focus their educational programs on the unique needs of their local populace. Serving online audiences requires a necessary level of experience and exposure to online culture. Treating it as an add-on to existing job functions will not suffice. It needs to be an integral and important job function of a significant number of Extension educators.

It must be recognized that most staff currently working in the Extension system likely do not have the skills or inclination to work in online environments. Furthermore, for some faculty/staff, current position descriptions and funding sources may limit their flexibility.

While it would be ideal if all staff devoted a portion of their time and effort to serving new audiences, this is not necessarily a realistic expectation. Attempts to force all staff into an organizational structure that requires them to perform in ways that they do not understand, and are not prepared to deliver, would be ill advised. While professional development efforts directed at all staff can and should be made available, scarce resources may be best targeted where they can make the greatest differencesâ on staff who have a desire and willingness to explore working in new and different ways.

The demand for online services is only going to increase. Extension is rising to the challenge lateâ and attempting to catch up when things are moving so quickly is especially difficult. It is clear that the predominant Extension organizational structures are not best suited for this challenge and that many faculty/staff do not appreciate the urgency of the situation.

In conclusion, the assessment team believed that the five assumptions it was asked to explore are indeed valid and has made thoughtful but challenging recommendations to guide the future work of OSU Extension and should be heeded by the Cooperative Extension System.

## Heading to the Future Without All the Answers

Although the case study of two appropriately selected county Extension sites was thorough, very insightful, and confirmed independent observation of other locations by the assessment team (resulting from the varied and extensive experience of its members), the limits of a case study in generalizing its findings beyond those locations are recognized. In other words, there may be differences in other counties that would require further investigation or input. For example, very urban counties or extremely remote and rural counties may differ from the counties studied.

However, the possible need for further study is not to be misconstrued that no action should be taken until all possible information becomes available. On the contrary, the assessment team truly believes that "time is of the essence" if Extension is to thrive in the digital age. This does not mean Extension needs to totally revamp itself, and it certainly should not completely ignore its historical clientele base.

However, for greater efficiency of limited resources as well as to reach new audiences, Extension should not ignore technology use trends and demographic changes that are reshaping the educational landscape and the means by which people expect to receive information or participate in learning opportunities. Instead, Extension should imagine the possibilities of reaching the next generation of people who could benefit from all of what Extension has to offer and expect that, in turn, citizens will be more likely to support services they believe in and use.

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